INSTITUTIONALIZED CRUCIBLE EXPERIENCES WITHIN
INTERMEDIATE-LEVEL EDUCATION

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General Studies

by

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This study explores the impact that crucible experiences have on leadership and leader development. This impact is specifically applied against the effects, both positive and negative, of implementing a crucible experience within Intermediate-Level Education across all military services within the Department of Defense and how this would affect the experience and leadership development for junior field grade officers. The current adult education model and curriculum meets the intent of developing leaders, but previous research has shown that crucible experiences can create extraordinary leaders. Evidence within this thesis implies that crucible experiences enable leaders to emerge stronger, more engaged, and more committed than ever. The intent of this study is to assist each of the services' Intermediate-Level Education curriculum development experts with future revisions to their programs and to form more effective learning experiences for junior field grade officers.

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The opinions and conclusions expressed herein are those of the student author and do not
necessarily represent the views of the U.S. Army Command and General Staff College or
any other governmental agency. (References to this study should include the foregoing
statement.)

ABSTRACT

INSTITUTIONALIZED CRUCIBLE EXPERIENCES WITHIN INTERMEDIATE-LEVEL EDUCATION, by Major Brandon D. Wengert, 78 pages.

This study explores the impact that crucible experiences have on leadership and leader development. This impact is specifically applied against the effects, both positive and negative, of implementing a crucible experience within Intermediate-Level Education across all military services within the Department of Defense and how this would affect the experience and leadership development for junior field grade officers. The current adult education model and curriculum meets the intent of developing leaders, but previous research has shown that crucible experiences can create extraordinary leaders. Evidence within this thesis implies that crucible experiences enable leaders to emerge stronger, more engaged, and more committed than ever. The intent of this study is to assist each of the services' Intermediate-Level Education curriculum development experts with future revisions to their programs and to form more effective learning experiences for junior field grade officers.

ACKNOWLEDGMENTS

This thesis is dedicated to my hero and father, Larry D. Wengert (September 15, 1949 to July 26, 2014).

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ACRONYMS

BUD/S	Basic Underwater Demolition/SEAL
DOD	Department of Defense
ILE	Intermediate-Level Educations
SEAL	Sea, Air, Land (U.S. Navy)

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CHAPTER 1

INTRODUCTION

The most dangerous leadership myth is that leaders are born—that there is a genetic factor to leadership. This myth asserts that people simply either have certain charismatic qualities or not. That's nonsense; in fact, the opposite is true. Leaders are made rather than born.

— Warren G. Bennis,
"Leader Development Programs"

Overview

This introductory question addresses the philosophical question, is a leader made, or is a leader born? In the opinion of Warren G. Bennis, an American scholar of leadership, leaders are made and refined over time. Within the Department of Defense (DOD), military doctrine points towards the idea that leaders are systematically developed through education and experience. Specifically, in the quest to make leaders, the military has formalized this theory and implemented programs designed to increase the attributes and competencies of leaders across all services and ranks. While each service addresses leadership development in slightly different terms, all service doctrine points to distinct pillars that are needed to effectively develop leaders. The pillars of effective leadership are operational assignments, education and training, mentorship, and self-reflection.[1]

Of the four pillars of leadership development, the pillars of operational assignments, mentorship, and self-reflection are the least concrete. Within these pillars,

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[1] Headquarters, Department of the Air Force, Air Force Doctrine Document (AFDD) 1-1, *Leadership and Force Development* (Washington, DC: Government Printing Office, 2004), 27.

there is significant flexibility and variance and dependent upon the individual and opportunities available. This flexibility and variance can enhance or decrease the value of leader development for each individual or group of similar individuals. Due to the wide variety of potential outcomes, and the inability to have direct control over the input and output of these three pillars, each of the military services focuses a preponderance of their effort on the education and training pillar of leader development.

The pillar of education and training for leader development in junior field grade officers is formalized through Intermediate-Level Education (ILE). Army Command and General Staff College, College of Naval Command and Staff, Marine Command and Staff College, and Air Command and Staff College are the four institutions that provide ILE to these officers. Each of the institutions provides one year of graduate level education and training in order to develop critical thinkers, innovative problem solvers, and ethical leaders. Targeted towards this specific group of military leaders, the curriculum of ILE adheres to the adult learning model of education.

The purpose of this thesis is to look at the effects, both positive and negative, of crucible experiences and how implementing a crucible experience within Intermediate-Level Education would affect the experience and leadership development for junior field grade officers. The current adult education model and curriculum meets the intent of developing leaders, but previous historical examples and case studies may show that crucible experiences can create extraordinary leaders. Given the appropriate circumstances, crucible experiences hypothetically enable leaders to emerge stronger, more engaged, and more committed than ever. The intent of this study is to assist each of the services' Intermediate-Level Education curriculum development experts with future

revisions to their programs and potentially form more effective learning experiences for junior field grade officers.

Primary Research Question

Should the DOD institutionalize a crucible experience within ILE?

Secondary Research Questions

1. Can crucible experiences increase the attributes of effective leadership; if so, which attributes?

2. What are the potential negative impacts associated with crucible experiences?

3. Can institutionalized crucible experience be effectively created in an education and training environment?

4. Can an institutionalized crucible experiences provide concrete context and increase the effectiveness of in-class adult education?

5. Are there any additional positive benefits of crucible experiences to an organization?

Assumptions

The following assumptions are believed to remain true, and add relevance to the research project. First, while each individual experiences a crucible differently, the impact of specific crucible experiences can be generalized across a target audience. Second, specific leadership attributes may be targeted through the makeup of a crucible experience. Third, crucible experiences can be presented in an education and training environment that enable the student to experience it in an unplanned manner.

Definitions

Confidence: Refers to both internal and external poise and certainty in the one's or the unit's aptitude to succeed in any situation. In addition, it is the ability to remain internally and externally composed and calm through control over emotions.[2]

Crucible Experience: Using the definition provided by Warren G. Bennis and Robert J. Thomas in *Crucibles of Leadership: How to Learn from Experience to Become a Great Leader*, a crucible is a transformative experience through which an individual comes to a new or altered sense of identity. Crucible experiences are intense, often traumatic, always unplanned experiences that transform a leader and become a source of their leadership ability.[3]

Crucible Leadership: The leadership attributes of warrior ethos, confidence, sound judgment, and resilience identified by the researcher as vital to a crucible participant.

Crucible Truths: Researcher-identified common similarities across crucible experiences that frame the experience for the participant. The researcher also identified the most prevalent crucible truths as mental disposition, relevance to time and space, and a test.

Crucible-like Experience: Researcher-identified term for an event that meets many, but not all, of the aspects of a crucible experience or meets all the aspects of a crucible experience but to a lesser intensity.

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[2] Headquarters, Department of the Army, Army Doctrince Reference Publication (ADRP) 6-22, *Army Leadership* (Washington, DC: Government Printing Office, 2012), 4.

[3] Warren G. Bennis and Robert J. Thomas, *Crucibles of Leadership: How to Learn from Experience to Become a Great Leader* (Boston, MA: Harvard Business Press, 2008), vi-viii, Kindle.

Intermediate-Level Education: Within this study, the term ILE refers to the one-year in-residence school that provides graduate level education and training for junior field grade offers. While each service offers their own version of ILE, all service schools educate, train and develop leaders for the joint, interagency, intergovernmental, and multinational operational environment.[4] ILE is offered through the Army Command and General Staff College, College of Naval Command and Staff, Marine Command and Staff College, and Air Command and Staff College.

Leader: Anyone who by virtue of assumed role or assigned responsibility inspires and influences people to accomplish organizational goals. A leader motivates people both inside and outside the chain of command to pursue actions, focus thinking, and shape decisions for the greater good of the organization.[5]

Leadership: The process of influencing people by providing purpose, direction, and motivation to accomplish the mission and improve the organization.[6]

Participant: For the purpose of consistency and brevity, participant within this thesis refers to a person, or persons, who successfully experienced a crucible.

Resilience: Showing a tendency to recover quickly from setbacks, shock, injuries, adversity, and stress while maintaining personal, mission, and organizational focus.

Sound Judgment: The capacity to assess situations shrewdly and draw sound conclusions. A person exhibits sound judgment in the ability to form appropriate

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[4] Marine Corps University, "Mission Statement, Command and Staff College," U.S. Marine Corps, accessed April 23, 2015, https://www.mcu.usmc.mil/csc.

[5] Headquarters, Department of the Air Force, AFDD 1-1, 23.

[6] Ibid., 75.

opinions, make sensible decisions, and reliable guesses. It also includes the ability to assess strengths and weaknesses of subordinates, peers, and adversaries to create appropriate solutions and action.[7]

Warrior Ethos: The professional attitudes and beliefs that characterize military members. It reflects a soldier's selfless commitment to the nation, mission, unit, and fellow military members.[8]

Limitations

The most significant limitation is time. Time constraint will limit the amount of research done and effort spent towards analyzing the findings associated with the research. Due to the time limitation, there was specific focus on Army and Air Force doctrine on leadership. In addition to time constraint, there is little prior research conducted that directly associates crucible experiences and the ability to implement crucible experiences within a controlled training and education environment. The previous two limitations are further vulnerable to limitation through the investigator's limited experience in conducting original research. This is the investigators first master's level research project. Finally, there is potential for limitation through investigator bias based on the researcher's previous crucible experiences and the researcher's perceived positive leadership development associated.

With consideration to risk and cost associated with institutionalized crucible experiences, this thesis will target risk and cost to individuals and their individual

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[7] Headquarters, Department of the Army, ADRP 6-22, 7.

[8] Mississippi College, "Introduction to Warrior Ethos," accessed April 23, 2015, http://www. mc.edu/rotc/files/5813/1471/5888/MSL_101_Values__Ethics_Sect_01_ Intro_to_the_Warrior_Ethos.pdf.

development. Conversely, this thesis will not address risk to resources or efficiency to the institution itself.

Delimitations

This thesis will be based solely on a review of the literature and analysis of impact an institutionalized crucible experience would have on ILE. The focus of the analysis will lie within the target concept of leadership development of junior field grade officers.

Significance

This study could be used to improve leader development in education and training for junior field grade officers. Additionally, while targeted to ILE, the impact and effects of institutionalized crucible experiences can be applied across developmental education programs for non-commissioned officers, senior non-commissioned officers, company grade officers, and field graduate officers.

Summary

The military's focus on leadership development is not a recent phenomenon. A review of the history of war and the nature of warfare, shows that leadership is a constant when compared against long-term military relevance and conflict success. While technology, capability, and capacity all play a part, human capital and leadership is widely considered the most important aspect of any military, historical or modern. Considering the dynamic and complex environment the DOD currently operates in, it is critical the military services constantly review and improve their program in order to increase the efficiency and effectiveness of ILE. Adding a crucible experience to the

curriculum may increase the overall benefit to junior field grade officers and provide an

opportunity to link classroom learning, operational experience, and future assignments.

CHAPTER 2

LITERATURE REVIEW

Men make history and not the other way around. In periods where there is no leadership, society stands still. Progress occurs when courageous, skillful leaders seize the opportunity to change things for the better.

— Harry S. Truman,
"Best Quotes on Leadership"

Overview

While there are remarkable amounts of literature written on the concept of crucible experiences (without the literature explicitly labeling the experience a crucible) and the theories of leadership and leader development, there is remarkably very little connecting the idea of institutionalized crucible experiences to leader development through education and training. The literature review will seek to provide the researcher with depth and breadth between the two concepts, crucible experiences and leadership.

Category Development

Despite the limited documented connection between crucible experiences and leader development, the relationship between the two is undeniable. In order to build a site picture and provide depth and breadth within this thesis, the literature review is divided into three main categories: leadership and leader development, crucible experiences, and case studies of experiences that can be considered crucibles.
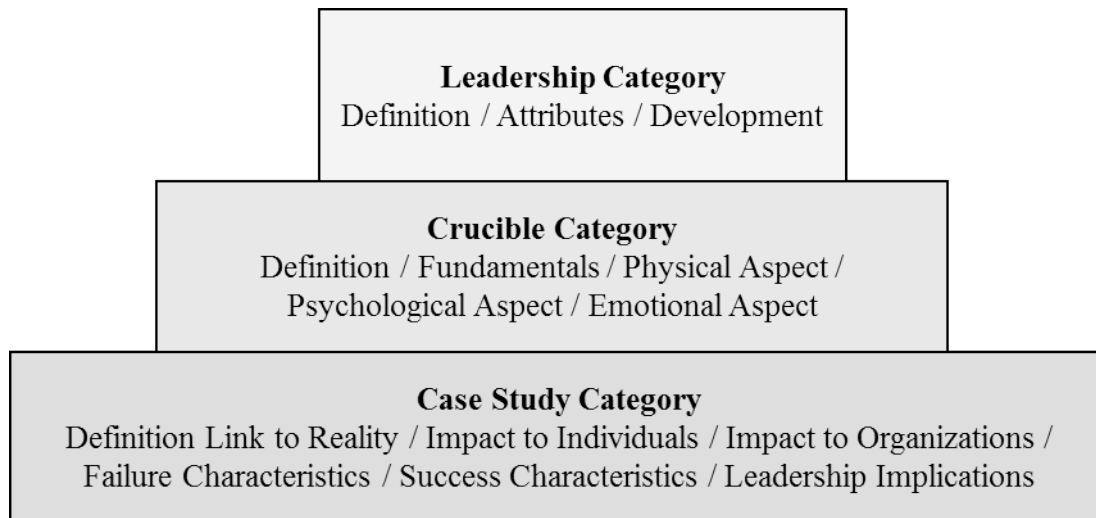
Leadership Category
Definition / Attributes / Development

Crucible Category
Definition / Fundamentals / Physical Aspect / Psychological Aspect / Emotional Aspect

Case Study Category
Definition Link to Reality / Impact to Individuals / Impact to Organizations / Failure Characteristics / Success Characteristics / Leadership Implications

Figure 1.   Thesis Categories

Source: Created by author.

To expand further, the leadership and leader development category will seek to define leadership from a joint perspective, and provide a foundation on how leaders are developed within the military institution. In order to reach an overarching conclusion on the crucible experience impact on leadership and leader development, the literature must first provide a foundation of what the desired leadership qualities are within the military profession. After identification of the desired leadership attributes, the literature must explore how the military institution targets the growth of these attributes within the junior field grade officer core. Together, leadership attributes and methodology to develop these attributes in leaders, build upon the understanding of crucible experiences and their impact to individuals.

Next, the crucible experience category will seek to define the parameters that make up a crucible or crucible-like experience. More importantly, this specific literature

assemblage is intended to help identify the distinction and transition between a difficult challenge and a true crucible experience. It will also seek to determine if a crucible experience is identified by the structure and facts surrounding the experience or the individual's perception of the experience. For example, a car crash, while a traumatic event for all, is experienced differently by each participant involved. The trauma may present a crucible experience for some and not for others based on their perspective.

Finally, a majority of the literature review focuses on specific case studies that capture crucible experiences across the joint military environment, as well as the strategic, operational, and tactical levels of decision-making and problem solving. Careful attention was paid to choosing the precise case studies for this research to ensure various perspectives were taken into account.

While there is a tendency to choose literature that fits into preconceived ideas, the consolidated literature examination consists of varying perspectives on doctrine, theory, and situations. The preponderance of effort in the literature selection was focused on case studies to ensure that they presented a logical and applicable analysis of the experience, and the experience fit within the previously determined parameters of a crucible.

The literature was reviewed, considered, and filtered applying the eight universal intellectual standards to ensure critical thinking: clarity, accuracy, relevance, logicalness, breadth, precision, significance, completeness, fairness, and depth.[9]

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[9] Critical Thinking Community, "Critical Thinking: Where to Begin," Foundation for Critical Thinking, accessed January 10, 2015, http://www.criticalthinking.org/pages/critical-thinking-where-to-begin/796.

<u>Leadership</u>

For the purposes of the leadership category, Army Doctrine Publication 6-22, *Army Leadership* servers as the principle literature source. This publication establishes the Army doctrinal view on leadership and the impact of leadership as it pertains to the Army. It also identifies leadership qualities desired within the Army and overviews the importance of leadership towards accomplishing the Army mission.[10]

The doctrine offers the Leadership Requirements Model to convey the rounded expectations that an Army leader must meet. Within the model, it establishes requirements in the form of attributes and competencies. *Army Leadership* attributes consists of what leaders should be and should know, while competencies are how leaders must conduct themselves. The Leadership Requirement Model does not distinguish the importance of attributes between the strategic, operational, and tactical levels of war, but does graphically present the importance of situational leadership.[11]

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[10] Headquarters, Department of the Army, ADRP 6-22, v.

[11] Ibid.

ATTRIBUTES

CHARACTER
* Army Values
* Empathy
* Warrior Ethos/Service
  Ethos
* Discipline

PRESENCE
* Military and professional bearing
* Fitness
* Confidence
* Resilience

INTELLECT
* Mental agility
* Sound judgment
* Innovation
* Interpersonal tact
* Expertise

LEADS
* Leads others
* Builds trust
* Extends influence beyond
  the chain of command
* Leads by example
* Communicates

DEVELOPS
* Creates a positive environment/
  Fosters esprit de corps
* Prepares self
* Develops others
* Stewards the profession
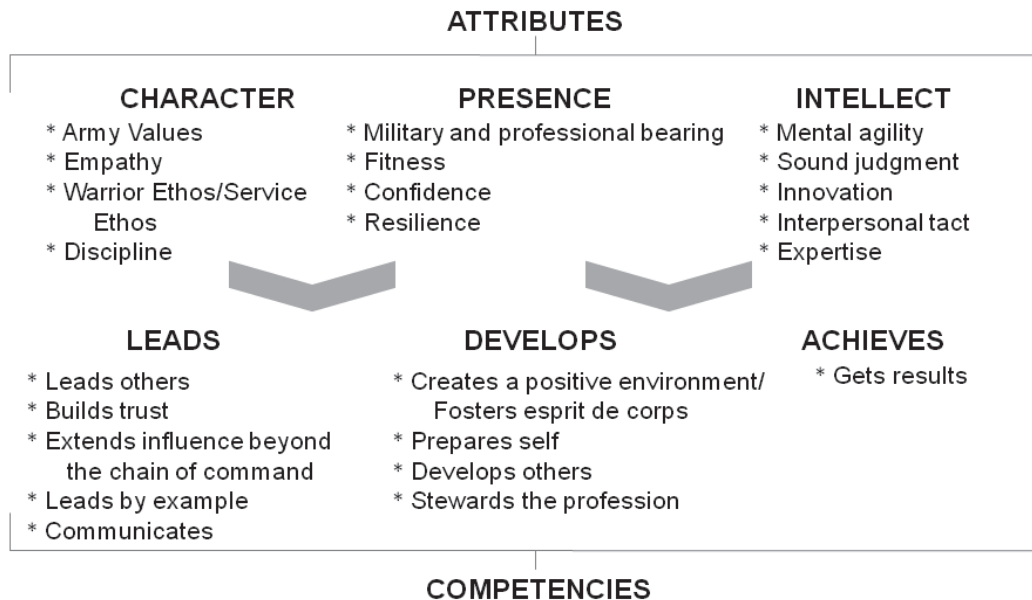
ACHIEVES
* Gets results

COMPETENCIES

Figure 2.   Army Leadership Requirements Model

Source: Headquarters, Department of the Army, Army Doctrine Publication 6-22, *Army Leadership* (Washington, DC: Government Printing Office, August 2012), 5.

In association with the Leadership Requirements Model, Army Doctrine Reference Publication 6-22, *Army Leadership* also describes leadership as "the process of influencing people by providing purpose, direction, and motivation to accomplish the mission and improve the organization."[12] Further clarification is provided on the leadership environment, the literature details that leadership involves two groups of people, those leading and those being led.[13]

The Air Force doctrinal view on leadership, offered in Air Force Doctrinal Document 1-1, *Leadership and Force Development*, is viewed a complement to Army

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[12] Headquarters, Department of the Army, ADRP 6-22, *Army Leadership*, iii.

[13] Ibid.

Doctrine Publication 6-22, *Army Leadership* for the purposes of this research. Similarly, this doctrine institutes the desired traits of an Air Force leader and how leaders a built through the various force development principles at the tactical, operational, and strategic levels of the Air Force organizational and force structure.

With an emphasis on a leader's personal engagement, the Air Force doctrine provides the Air Force's Enduring Leadership Competencies. It suggests these competencies are critical to creating a flexible and adaptive force. The intent of the competencies is to develop Air Force officers capable of leading action to influence their subordinates, improve their unit's abilities, and accomplish their unit's mission.[14]

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[14] Headquarters, Department of the Army, AFDD 1-1, 9.

PERSONAL LEADERSHIP
- Exercise Sound Judgment
- Adapt and Perform Under Pressure
- Inspire Trust
- Lead Courageously
- Assess Self
- Foster Effective Communication

LEADING PEOPLE/TEAMS
- Drive Performance through Shared Vision, Values, and
Accountability
- Influence through Win/Win Solutions
- Mentor and Coach for Growth and Success
- Promote Collaboration and Teamwork
- Partner to Maximize Results

LEADING THE INSTITUTION
- Shape Air Force Strategy and Direction
- Command Organizational and Mission Success through
Enterprise Integration and Resource Stewardship
- Embrace Change and Transformation
- Drive Execution
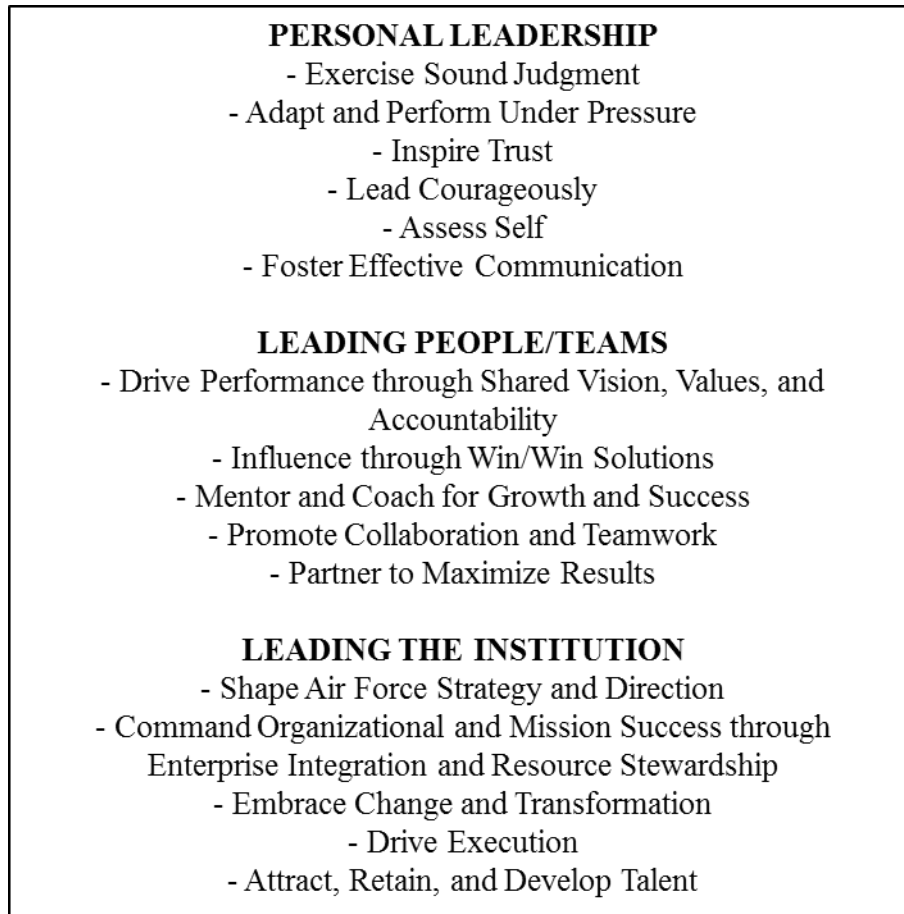- Attract, Retain, and Develop Talent

Figure 3.   Enduring Leadership Competencies

Source: Headquarters, Department of the Air Force, Air Force Doctrine Document 1-1, *Leadership and Force Development* (Washington, DC: Government Printing Office, 2004), 10.

Air Force Doctrine Document 1-1, *Leadership and Force Development* also describes the levels of leadership within the Air Force as they relate to the three levels of war: tactical, operational, and strategic. At the operational level of war, where most ILE students will be assigned upon graduation or course completion, leadership becomes more complex due to the balance between personal leadership and institutional leadership. Air Force doctrine dictates that "all aspects of the competencies are necessary

to varying degrees at all levels, there is a change in focus based on the level at which a

leader is operating."[15]

Leadership Levels

INSTITUTIONAL

Strategic

People / Team

Operational   PERSONAL
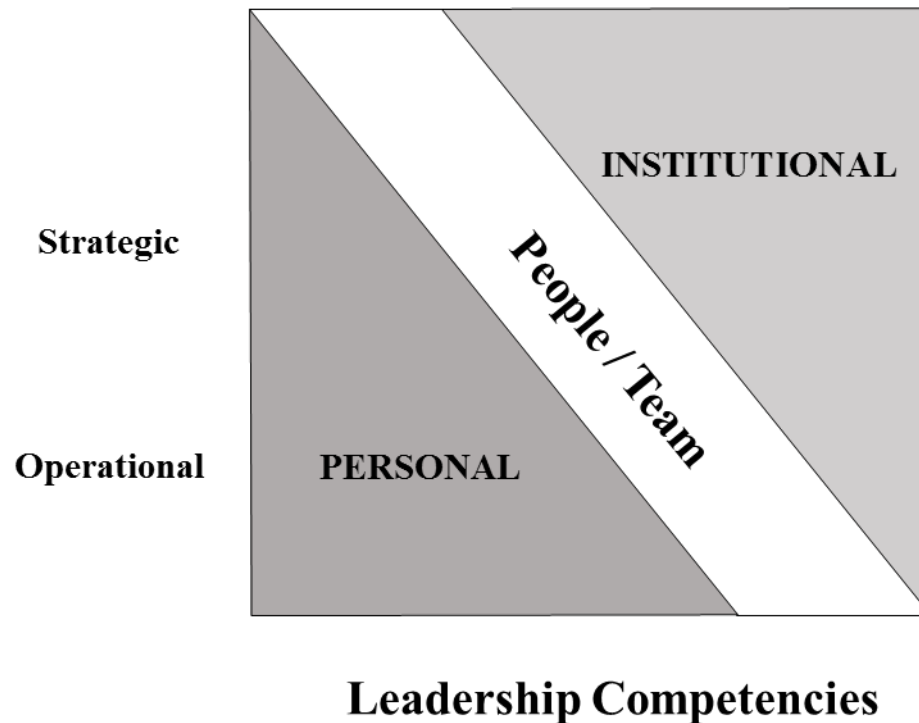
Leadership Competencies

Figure 4.   Relationship of Leadership Levels with Enduring Leadership Competencies

Source: Headquarters, Department of the Air Force, Air Force Doctrine Document 1-1,
Leadership and Force Development (Washington, DC: Government Printing Office,
2004), 8.

To expand further on the Army process of building leaders through leader

development, Headquarters, Department of the Army publishes Army Doctrine

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[15] Headquarters, Department of the Air Force, AFDD 1-1, 8.

Reference Publication 7-0, *Training Units and Developing Leaders*. For the purpose of this research, this literature expands upon the previously mentioned force development model offered by the Air Force. Army Doctrine Reference Publication 7-0, *Training Units and Developing Leaders* specifically overviews the Army's slightly different view on the role of training and leader development, principles of unit training, and leader development.

As defined in the Army Leader Development Strategy, leader development is a continuous, progressive process by which the blend of a soldier's training, education, and experiences contribute to individual growth over the course of a career.[16] The Army views leader development as a mutually shared responsibility across three domains of learning: the institutional Army (education and training institutions), the operational force (organization or unit), and the individual.[17]

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[16] Headquarters, Department of the Army, *Army Leadership Development Strategy* (Washington, DC: Government Printing Office, 2013), 3.

[17] Headquarters, Department of the Army, Army Doctrince Reference Publication (ADRP) 7-0, *Training Units and Developing Leaders* (Washington, DC: Government Printing Office, 2012), 1-1.

Figure 5.   The Army's Leader Development Model

Source: Headquarters, Department of the Army, Army Doctrine Reference Publication (ADRP) 7-0, *Training Units and Developing Leaders* (Washington, DC: Government Printing Office, 2012), 1-2, 10.
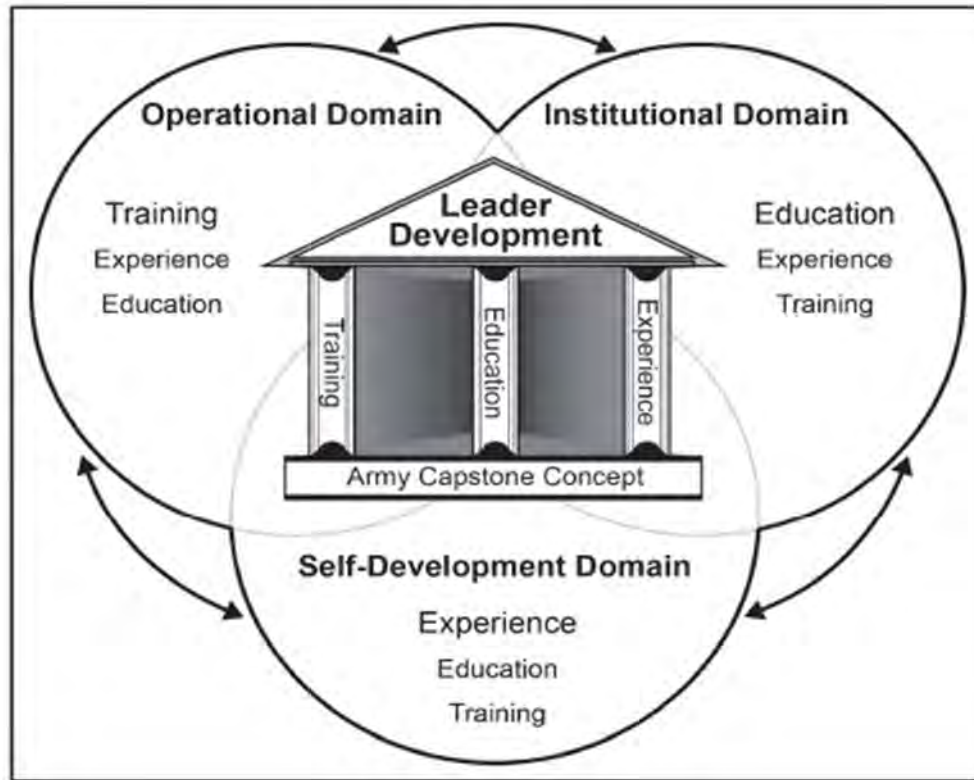
Within the development strategy, the domains are not equal. A majority of leader development will occur within the operational and self-development domain. This consideration does not decrease the importance of the institutional domain. The education, training, and associated exercises developed within Army schoolhouses provide soldiers with points of reference and opportunities to reflect on current leadership style and ability compared to the desired style and ability.

Crucible Experience

For the purposes of the crucible experience category, the researcher considers *Crucibles of Leadership: How to Learn from Experience to Become a Great Leader* as the primary source literature. In this book, renowned crucible expert Robert J. Thomas concludes that a crucible experience can be a valuable tool in developing leadership ability. Moreover, crucible experiences present opportunities for leaders to learn and emerge more affective at conquering adversity.[18] The literature seeks to answer the questions of what a crucible experience is and what traits lead to growth within the experiences.

Crucible experiences, defined within *Crucibles of Leadership: How to Learn from Experience to Become a Great Leader,* are an intense, unexpected, and pointed experience that transforms a leader's ability. The experience can take many shapes and forms but ultimately provides a trial or test, offers opportunity for deep self-reflection, and forces leaders to answer questions about who they are and what matters to them.[19] Through the crucible, the leader matures with a new or altered sense of identity and confidence in their leadership ability.[20] Ultimately, the literature offers that crucibles provide open minded and resilient participants a chance to learn from difference, prevail over darkness, meet great expectations, and grow in the essential attributes of leadership.[21]

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[18] Bennis and Thomas, 18-20, Kindle.

[19] Ibid.

[20] Ibid., 38.

[21] Ibid.

Within military doctrine, Army Field Manual 6-22.5, *Combat and Operational Stress Control Manual for Leaders and Soldiers* is most associated to the previously definition of a crucible experience. This literature does not explicitly label any certain stressful events as crucibles, but it aims to inform leaders, and soldiers themselves, about the stresses associated with all aspects of military operations. Stresses can be attributed to combat, stability, and civil support operations. The literature provides an outline and process to assist in preventing, reducing, identifying, and managing stress reactions.[22] More specifically, it provides a roadmap for leader actions and preventative measures required to manage the stresses of the military environment.[23] The tools provided in the literature support maximum effectiveness. It also captures the Army's stance that stress is not avoidable, but it is manageable by having resilient soldiers, leaders, and organizations.

Combat and Operational Stress Control Manual also makes a significant point that stress can lead to positive factors as well. These factors are identified as Adaptive Stress Reactions. More specifically, "stressors, when combined with effective leadership and strong peer relationships, often lead to adaptive stress reactions which enhance individual and unit performance."[24]

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[22] Headquarters, Department of the Army, Field Manual (FM) 6-22.5, *Combat and Operational Stress Control Manual for Leaders and Soldiers* (Washington, DC: Government Printing Office, 2009), 1-1.

[23] Ibid., 2-1.

[24] Ibid., 1-4.

Table 1.   Adaptive Stress Reactions

Horizontal bonding	The strong personal trust, loyalty, and cohesiveness which develops among peers in a small military unit.
Vertical bonding	Personal trust, loyalty, and cohesiveness that develops between leaders and their subordinates.
Esprit de corps	Defined as a feeling of identification and membership in the larger, enduring unit with its history and intent. This may include the unit (such as battalion, brigade combat team [BCT], regiment, or other Army organization), the branch (such as infantry, artillery, or military police), and beyond the branch to the US Army level.
Unit cohesion	The binding force that keeps Soldiers together and performing the mission in spite of danger and adversity. • Cohesion is a result of Soldiers knowing and trusting their peers and leaders and understanding their dependency on one another. • It is achieved through personal bonding and a strong sense of responsibility toward the unit and its members. • The ultimate adaptive stress reactions are acts of extreme courage and almost unbelievable strength. They may even involve deliberate heroism resulting in the ultimate self-sacrifice.

Source: Headquarters, Department of the Army, Field Manual 6-22.5, *Combat and Operational Stress Control Manual for Leaders and Soldiers* (Washington, DC: Government Printing Office, 2009), 1-4, 12.

With focus on the mental aspects of a crucible experience, *Thoughts of a Philosophical Fighter Pilot* is widely considered a primary source document. Vice Admiral James B. Stockton of the U.S. Navy, the only three-star naval officer in history to wear both Aviator Wings and the Congressional Medal of Honor, offers this literature to help describe "how man can rise with dignity in the face of adversity."[25] This central theme provides Admiral Stockdale's thoughts on leadership, discipline, integrity, and survival learned during his eight years as a prisoner of war, with nearly four years in solitary confinement. While any prisoner of war situation is challenging, Admiral Stockdale's time at the infamous Hanoi Hilton and treatment by his Vietnamese captures was notably significant due to his status as the senior ranking naval officer held during

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[25] Jim Stockdale, *Thoughts of a Philosophical Fighter Pilot* (Standford, CA: Hoover Institution Press, 1995), 30, Kindle.

the conflict. What is more, the literature reflects on how he was able to rely upon his pre-crucible philosophy background, founded in stoicism and its indifference to pleasure or pain, to truly understanding and analyzing the complexity of his crucible challenge.

The collection of essays and speeches intend to educate educated the researcher on how this experience can be applied to modern day situations. While not everybody will be a prisoner of war, *Thoughts of a Philosophical Fighter Pilot* suggests that everybody will face the same adversity, perhaps at a different intensity level, throughout their life. Admiral Stockdale concludes that by understanding the root of the nature and being a realist to the situation, a person can grow, rather than fail, in the face of extreme trials.

Expanding upon Admiral Stockdale's research of the mental aspects, Michael Useem, recognized expert on leadership, provides *The Leadership Moment* to expand perspective on a leader's actions during a crucible or high-stress moment. This collection of short stories studies through examples of how leaders successfully, or unsuccessfully, deal with challenges internal and external to their organization or situation.[26] The scenarios range from firefighters to pharmaceutical executives and in each story, the leader is faced with challenges that generate significant pressures. Ultimately, the leader's triumph or failure hinges on their management of the pressure. *The Leadership Moment* prescribes several tactics on how leaders can navigate a crucible experience. Of

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[26] Michael Useem, *The Leadership Moment: Nine True Stories of Triumph and Disaster and Their Lessons for Us All* (New York: Crown Business, 1999) 3-4, Kindle.

note, the tactics prescribed include always doing the right thing even if it is difficult and share and communicate throughout the organization to gain trust.[27]

The underlying characteristics described in each aspect of the crucible experience category, be it the definition, mental aspect, or conduct of the leader, are all linked together as a written requirement for all students attending the resident U.S. Army Command and General Staff Officer Course at Fort Leavenworth, Kansas.[28] While attending the U.S. Army Command and General Staff Officer Course, students receive two leadership courses, L100: Developing Organizations and Leaders, which consists of eleven lessons totaling twenty-six hours of classroom instruction in the Core Course (August to November), and L200: Leadership Applied, eleven lessons totaling twenty-two hours of classroom instruction in the Advanced Operations Course (December to March). Within this curriculum, the "Crucible Experience" lesson is particularly relevant to this thesis because it labels, defines, and recognizes the importance of a crucible experience through the Army perspective.[29]

The process of identifying a crucible experience is deliberate and begins at the onset of the school year in August when the Command and Leadership instructor introduces the concept and outlines the requirement. The students are given five months to complete this assignment, which provides them time to reflect, identify, and finally

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[27] Useem, 3-4, Kindle.

[28] Army Command and General Staff Officer College, "Leadership Applied: Crucible Essay," Blackboard, accessed January 8, 2015, https://cgsc.blackboard.com/webapps/blackboard/content/listContent.jsp?course_id=_3801_1&content_id=_241846_1.

[29] Ibid.

write about a personal crucible experience. The students are advised to begin the process by reading the article "Crucibles of Leadership" by Warren G. Bennis and Robert J. Thomas to assist their understanding of what a crucible experience is and how it may influence the development of a leader.[30]

In December, at the start of the second block of leadership instruction, L200: Leadership Applied, the instructor reviews the crucible experience concept and requirement again and answers student questions. Numerous students seek additional or private counseling from their instructors to identify and clarify their crucible experience before starting the written requirement. Once the crucible experience is identified, the students must write a three to four-page essay that addresses the three parts of the requirement. The first part is to identify and describe a significant experience from the student's life and how it challenged or shaped them as a leader. The second part is to justify why it was a significant experience. The third part is to explain how the experience will influence the individual in the future as an organizational leader.[31]Ultimately, the lesson is intended to offer the students an increased ability to

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[30] Warren G. Bennis and Robert J. Thomas, "Crucibles of Leadership," *Harvard Business Review,* accessed May 8, 2015, https://hbr.org/2002/09/crucibles-of-leadership/ar/1. The lesson culminates during the second phase of leadership focus at the college, referred to as "Leadership Applied," where field grade officers from the joint community and international partners, as well as civilian-equivalent members of the interagency, are provided a glimpse of the Army perspective of what makes up a crucible experience. In association with the crucible introduction, students are required to identify a crucible experience from their past, with help from a professor if needed, that fits the crucible definition.

[31] Army Command and General Staff Officer College, "Leadership Applied: Crucible Essay."

recognize or find meaning in their crucible experience, but does not actually offer a crucible for the student, which is where this thesis varies.

<div align="center">Case Studies</div>

Each of the case studies outlined in this section are considered to be independent from each other and are all weighted equally in their relevance to the thesis. These cases studies were chosen to provide depth and breadth for the researcher.

The first notable case study is *Freedom Flyers: The Tuskegee Airmen of World War II.* Within the literature, the author provides an inside perspective on the experiences of a band of African-American aviators during World War II. Specifically, the literature details the Tuskegee Airmen, or African-American aviators, assigned to the Army Air Corps as they fought battles against both the Axis powers, as well as oppression within their own country and military. Because of their combat valor and effectiveness, the Tuskegee Airmen broke barriers and sparked subsequent desegregation within the Armed Forces.[32]

The literature effectively portrays how the Tuskegee Airmen used the significant obstacles they faced, to include racial bias, harsh training environments, poor resources, and high-risk missions, to develop a highly effective team capable of legendary combat prowess. The story of the *Freedom Flyers* provides constant themes of determination, resilience, and leadership.

Continuing with the historical military theme, *Unbroken: A World War II Story of Survival, Resilience, and Redemption* covers in detail, the life of world-class athlete and

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[32] Todd J. Moye, *Freedom Flyers: The Tuskegee Airmen of World War II* (New York: Oxford University Press, 2012), 14, Kindle.

World War II hero Louis (Louie) Zamparini. The story details adventures throughout his youth, with broad accounts of delinquency and juvenile mischief, and cultivates a connection between his adventures and his growth as an athlete. Because of his athletic prowess, Zamparini went on to run the 5,000 meters in the 1936 Berlin Olympics and was one of the first athletes to ever flirt with the coveted four-minute mile.[33]

The literature takes a turn as World War II approached and Zamparini enlists in the Army Air Corps. During his military service, he was stationed in Hawaii and serves as a bombardier on a B-24 bomber named the "Green Hornet."[34] In May 1943, the B-24 carrying the twenty-six-year-old Zamparini as a part of the eleven-man crew went down over the Pacific Ocean. He and two others, the pilot and tail gunner, were the only survivors of the crash.

Finally, the story shifts to the unprecedented courage and ingenuity shown by Zamparini as he survived seven weeks floating over 2,000 miles on a makeshift raft. [35] He and the survivors sustained themselves creating makeshift fishing poles and capturing rainwater from storms. Eventually, the crew was captured by the Japanese and placed in prison camps for two years. Conditions in these camps were so severe that one in three American prisoners of war did not survive.[36]

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[33] Laura Hillenbrand, *Unbroken: A World War II Story of Survival, Resilience, and Redemption* (New York: Random House, 2010), 138.

[34] Ibid., 113.

[35] Ibid., 156.

[36] Ibid., 7.

Based on his social standing as an American hero and Olympic athlete, Zamparini was too valuable as a propaganda tool to his captors to kill, but instead endured unprecedented cruelty and torture within the camp walls. The focus of the literature is the integrity, resilience, and leadership that Zamparini displayed during his capture and torture, as well as how he inspired his fellow soldiers to maintain their sanity and resistance.

Diving into a more modern perspective on the military and military mindset, *Breaking BUD/S: How Regular Guys Can Become Navy SEALs* provides an honest assessment and perspective on how to survive, and at times excel, through the difficult challenge of Basic Underwater Demolition/Sea Air Land (BUD/S) Training. BUD/S is a six-month Sea Air Land (SEAL) training course held at the Naval Special Warfare Training Center in Coronado, CA. [37] The author presents his perspective on the mental toughness and physical conditioning that is required to endure the experience.

In a conversational tone, the literature offers tactics, techniques, and procedures that will assist BUD/S applicants towards embracing the suck and becoming a better warrior and leader because of the experience. Additionally, the author offers that there are no quick or easy way to endure BUD/S and uses the analogy, "How do you eat an elephant?" to present his point. [38] Each bite of the elephant is difficult, yet manageable, and a person's mindset is the ultimate deciding factor on how well they will perform.

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[37] D. H. Xavier and Mark Owens, *Breaking BUD/S: How Regular Guys Can Become Navy SEALs,* 2nd ed. (CreateSpace Independent Publishing Platform, 2013), 7, Kindle.

[38] Ibid., 6.

In order to provide real work context to many of the concepts presented in *Breaking BUD/S*, the author of *Outlaw Platoon: Heroes, Renegades, Infidels, and the Brotherhood of War in Afghanistan* capture's a twenty-four-year old platoon commander's point of view as he leads his platoon from the 10th Mountain Division over the course of a sixteen-month deployment.[39] The platoon operates out of a small Forward Operating Base in the Bermel Valley, a hotly contested piece of Afghanistan that edges its border with Pakistan. The literature clearly articulates the hardships, friendships, and leadership associated with being under constant fire and attack from a very capable and proficient enemy.

The literature captures the real time decision-making a commander needs to lead both his soldiers and self in combat. The victories, mistakes, and lessons learned under fire are all embraced and transparent by the author. Because of their fierce character and courage, the Outlaw Platoon was awarded seven Bronze Stars, including five for Valor, twelve Army Commendations for Valor, and thirty- two Purple Hearts upon their redeployment.[40]

Summary

This literature review has highlighted some of the many sources the individual topics of leadership and leader development, crucible experiences, and case studies of experiences. The literature chosen for this thesis convers the key concepts in terms of

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[39] Sean Parnell and John R. Bruning, *Outlaw Platoon: Heroes, Renegades, Infidels, and the Brotherhood of War in Afghanistan* (New York: William Morrow, 2012), 1-2, Kindle.

[40] Ibid.

both theory and practice. Each of the literary choices was identified based on the quality

and experience the associated author presents in the specific topic. Having conducted this

literature review, the research will apply the methodology presented in chapter 3 to

develop the analysis presented in chapter 4 in an effort to make a conclusion and

recommendation on how an institutionalized crucible experience would add value to

officer leader development.

CHAPTER 3

RESEARCH METHODOLOGY

A true leader has the confidence to stand alone, the courage to make tough decisions, and the compassion to listen to the needs of others. He does not set out to be a leader, but becomes one by the equality of his actions and the integrity of his intent.

— Douglas MacArthur, "Good Leaders are Invaluable to a Company. Bad Leaders Will Destroy It"

Overview

This research study examined the advantages and disadvantages of establishing a crucible experience within the framework of leadership development for junior field grade officers; more specifically, an institutionalized crucible experience within the ILE process. The primary question the researcher sought to answer was: should the DOD institutionalize a crucible experience within ILE? In studying this primary question, the following subordinate questions emerged:

1. Can crucible experiences increase the attributes of effective leadership; if so, which attributes?

2. What are the potential negative impacts associated with crucible experiences?

3. Can institutionalized crucible experiences be effectively created in an education and training environment?

4. Can an institutionalized crucible experience provide concrete context and increase the effectiveness of in-class adult education?

5. Are there any additional positive benefits of crucible experiences to an organization?

<u>Identification and Isolation of the Problem</u>

In conducting the research for this thesis, the researcher sought to identify and isolate the problem by identifying consistent thoughts, ideas, and concepts that surfaced across all categories. The targeted material is represented in the overlap between the literature categories of leadership and leader development, crucible experiences, and case studies.
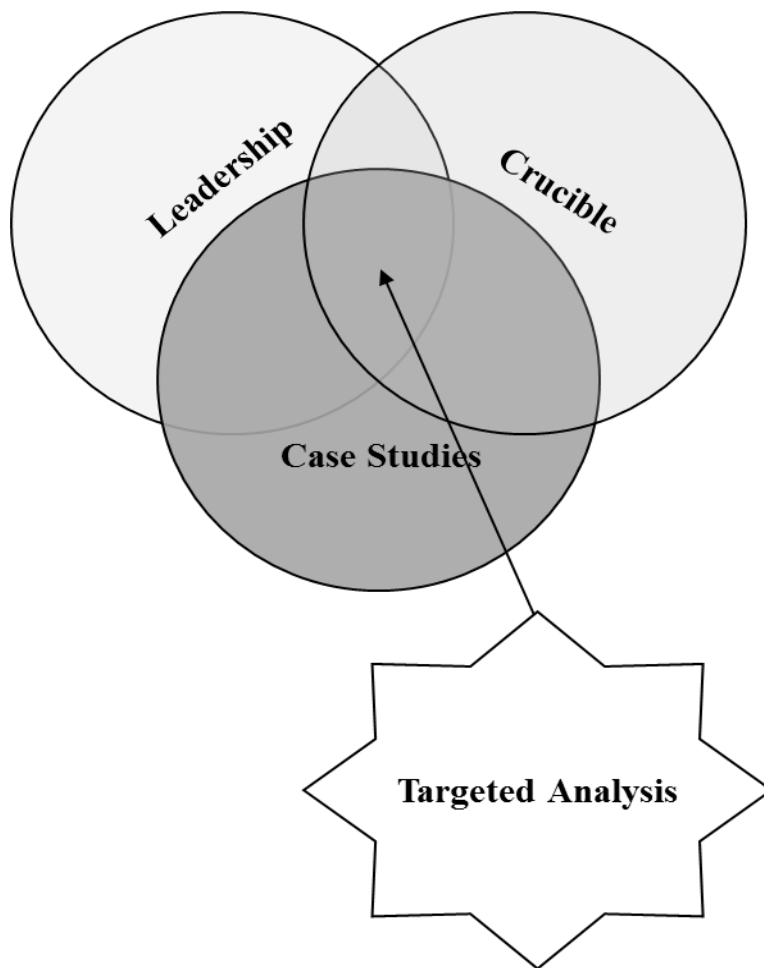

Figure 6.   Thesis Targeted Analysis

Source: Created by author.

Development of a Hypothesis

During this step, initial assessments within the three literature categories were developed. The process also focused specific emphasis towards defining parameters of what makes up a crucible experience and how crucible experiences impact, or is impacted by, leadership. Additional amplification was placed on understanding the development of leaders in the joint environment and the relation to the established context of crucible experiences. From this preliminary assessment and review process, the researcher hypothesized that institutionalizing a crucible experience within ILE would provide substantial relevance and value to the joint community and junior field grade officer development.

Organization of the Findings

Qualitative analysis and deductive reasoning are the primary research tools used to process, organize, and synthesize critical information uncovered throughout the literature review, and more pointedly the target overlap. The qualitative research within the literature gathered information, not numeric or metrics, which was descriptive and relevant to the problem statement. Moreover, the qualitative analysis provided the researcher increased depth and breadth of understanding of the individual topics of leadership, leader development, and crucible experience. Expanding upon the individual definitions, the researcher sought to examine how people think, feel, and react during crucible experiences. These reactions, through the lens of qualitative analysis, provided a framework to comprehend how leadership and leader development fits within the overall context of the thesis.

With the starting point hypothesis, institutionalizing a crucible experience within ILE, deductive reason was applied to the qualitative analysis to examine possibilities and reach a logical conclusion. The highlight of deductive reasoning was to find premises within the three categories of literature and extract those premises towards the conclusion and recommendation. The researcher's intent is to validate the premises and align the conclusion and recommendation along the premises to form an argument that is true.

This research paper acknowledges the potential for identified premises to be fully or partially untrue. If these premises are wrong, the conclusion and recommendation may be logical but also wrong.

<div align="center">Formation of Conclusions</div>

The final step of the research methodology involved developing and refining conclusions and recommendations based upon identification and isolation, the problem found in the literature review, development of a hypothesis, and organization of findings through qualitative analysis and deductive reasoning. Analysis of the findings are presented in chapter 4 and the conclusions and recommendations are provided in chapter 5.

<div align="center">Summary</div>

This research effort attempted to frame crucible experiences and the connection to leadership in terms of an effective leader development tool. After developing a series of pertinent research questions and conducting an extensive literature review into the areas of leadership and leader development, crucible experiences, and case studies, the researcher sought to assess the value of institutionalizing crucible experiences within

ILE. The final chapter of the thesis outlines conclusions and offers recommendations regarding how institutionalized crucible experiences would affect leader development for junior field grade officers.

CHAPTER 4

ANALYSIS

> Leadership is solving problems. The day soldiers stop bringing you their problems is the day you have stopped leading them. They have either lost confidence that you can help or concluded you do not care. Either case is a failure of leadership.
> ― Colin Powell, "Leadership is Solving Problems"

Overview

The primary research question for this Masters of Military Art and Science thesis is: should the DOD institutionalize a crucible experience within ILE? The previous chapters provided a foundation to the researcher on the makeup of crucible experiences, how leadership and leader development is viewed in the military, and the leadership impact to crucible participants in case studies in order to develop a better understanding as to the details embedded within this primary question. In addition, the research methodology provided a systematic manner to analyze the literature, classify commonalities across the literature, and create a framework to answer the question.

Eventually, the researcher determined analysis of the literature presented three major findings. First, crucible experiences can be clearly identified and defined as they pertain to leadership. Second, crucible experiences offer specific truths to the participants. Third, crucible experiences challenge and progress specific leadership attributes within the participant. Through the understanding of the three mentioned points of analysis, the final section of this chapter targets the researcher's response to the primary and secondary research questions.

Crucible Experience Defined

The definition of a crucible experience, as provided by *Crucibles of Leadership: How to Learn from Experience to Become a Great Leader,* was universal across the various case studies contained by the literature review. Each case study, from the Tuskegee Airmen to Merc Pharmaceutical, detailed a transformative experience that altered the participant's sense of identity. More specific to this thesis, the crucible transformed the participant as a leader and developed into a guiding force that drove the future of their leadership ability and style. [41]

In addition to being a transformative experience, the researcher identified other commonalities across the literature. These commonalities make up the baseline for the analysis, as well as build towards the conclusion provided in chapter 5 of this thesis. The commonalities can be divided into two distinct but interrelated categories acknowledged by the researcher: crucible truths and crucible leadership.

Crucible Truths

With a clear understanding of what truly makes up a crucible experience, the first major commonality identified in the research analysis is the commonality of the crucible truth. Crucible truths are elements of a crucible experience that do not particularly apply to leadership or leadership attributes, but frame the crucible experience for the participant. Without a clear understanding of crucible truths, a participant may miss the opportunity to cultivate or expand their leadership capacity through the experience. While there were many similarities across the literature, and in particular the case studies, the

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[41] Bennis and Thomas, 18-20, Kindle.

most prevalent crucible truths are mental disposition, relevance to time and space, and a test.

In the literature, the same experience had significantly different impacts to each individual participant. Some participants panicked and avoided the crucible at all costs, while others embraced it and improved and consequently improved as a leader. When the case study category is applied against the leadership and leader development and crucible categories, a crucible truth became evident to the researcher that a person's mental disposition was the leading factor whether a person would mature from the experience, labeling it a crucible, or be defeated by it.

A person's mental disposition during a crucible experience can vary throughout, ranging from compulsive to flexible, to assertive, to defeated, and so on. More important than the individual mental attributes portrayed by the participant is the overall mental distinction between an attitude of pessimism, optimism, or realism.[42]

Each of the attitudes plays an important part in human nature, but when it comes to developing as a leader and thriving in a crucible experience, realism is the most valuable mental methodology. By approaching the adversity associated with the crucible with an honest and open assessment, and embracing the reality of the experience, a crucible participant is able to avoid self-delusion and discover the confidence to take appropriate action during the situation. With admission of the truth, or realism, surrounding the crucible, the realist participant uses the experience to rely on and advance their own leadership attributes.

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[42] Stockdale, 182, Kindle.

Within *Breaking BUD/S*, author D. H. Xavier accounts the importance of a person's mental disposition when applied against the daunting task of the Navy's SEAL Teams entry special operations training.[43] The intensity, pressure, and demands of this training ensures candidates are exposed to crucibles while in attendance. With that, it is very common for the most capable, mentally talented, and physically fit candidates to fail out of this crucible because of their mental disposition towards optimism. Many times these candidates know previous candidates that have survived the training, often considered one of the most difficult courses in any military inside or outside of the United States, and feel a level of superiority and accomplishment upon entering the program. That superiority, or optimism, is quickly replaced with defeat as the program requirements exceed any preconceived expectation. To amplify the impact, the course instructors often escalate difficulty levels to target these overconfident individuals to ensure all candidates find opportunities for failure inside the course.[44]

On the opposite end of the spectrum, the candidates that enter BUD/S crucible with a sense of realism quickly embrace the extreme difficulty and understand that embracing, surviving, and recovering from the crucible failure is the key to success. The author labels the realists as "The Clown" who smiles in the face of adversity knowing it will not last forever, or "The Informed Guy" who seeks out the extreme adversity and faces it head on.[45] Ultimately, the author concludes, surviving BUD/S came down to a candidate's ability to manage their own expectations and understand the situation is

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[43] Xavier and Owens, 8, Kindle.

[44] Ibid., 68.

[45] Ibid., 44-45.

designed to make them quit. Basically, success in this crucible is about the ability to create and maintain realist's mental disposition.[46]

Once the researcher established that mental disposition was the first essential crucible truth, the crucible experience and its relevance to time and space became evident as the second crucible truth. More specifically, a crucible experience must be viewed through the perspective of past, present, and future influence to the participant. In order for a leader to reap the full benefit from a crucible experience, the leader must analyze their leadership ability and capacity prior to and during incident, and then shape the future of their own leadership development moving forward. Many leaders find the climax of the crucible challenge as the moment where the extent of their previous leadership education, training, and experience manifests itself and transitions to the elevated sense of awareness that includes more efficient and effective leadership.

The transition of a crucible experience across time and space can be likened to a child learning to pitch a baseball. First, they learn the mechanics of a throw and practice the pitch on the sidelines. Eventually, they are nervously placed into a game with everybody watching and the pressure of the moment (a child's crucible experience). Once the child throws the first successful strike, their previous experiences unfold and each successive pitch is thrown with increasing confidence and ability.

The concept of time and space, in the context of a crucible experience, is most evident in the tales of the Tuskegee Airmen during World War II. The Tuskegee Airmen, like all of the crucibles reviewed, developed over the course of multiple interrelated but

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[46] Xavier and Owens, 48, Kindle.

separate crucible experiences. For this purpose, the crucible experience of their training at Tuskegee Airfield, AL serves as the point of reference.[47]

For many of the Tuskegee Airmen, the experience prior to entering training, or the past, was shaped by prejudice, lack of opportunity, external inferiority, and limited education.[48] Despite this perceived disadvantage, the Airmen excelled during the crucible of training through a sense of realism and reliance on their character, discipline, and determination. The training crucible presented itself in the form of nearly unattainable standards, limited resources, and second-class instruction.[49]

Upon successful completion of their training, the crucible experience effectively shaped them for the upcoming air combat over Europe, or the future. Forged through the crucible, the aviators' internal leadership manifested into unprecedented combat effectiveness while still being under resourced and over tasked. It can be argued that without the previous crucible of training hardship, it is unlikely the Tuskegee Airmen would have outperformed their aviator peers and grown to legendary status in World War II.

Finally, the most important crucible truth is the test. Each crucible experience within the literature review presented the participant with a test. The test came in many different forms and challenged the participant's attributes ranging from fitness, survivability, mental resilience, character, and so on. The critical aspect of the crucible test is that it pressed the participant beyond limits they had previously experienced or

[47] Moye, 4, Kindle.

[48] Ibid., 29.

[49] Ibid., 7.

imagined they could experience. For simple example, science often offers that a person can only survive three days without water. With that, there is evidence that several people have survived beyond eight days. Surviving without water for three days is definitely a difficult challenge but not a crucible test. On the other hand, surviving for eight days clearly fits the definition of a crucible test.

Moreover, the source of the test can present itself from differing angles. The source can be a captor in a concentration camp or the pressure of a course of action that presents substantial risk or consequence. The researcher's in-depth analysis of the source of crucibles offers that the most relevant cause of a crucible test comes from within the participant. In these tests, the participant self-identifies and knowingly seeks out the test. This is very similar to walking down the street and seeing a burning building with many observers curbside. In this, the crucible participant decides they must embrace the crucible test and enter the building to ensure all occupants have been removed while all others watch from the peripheries.

The concept of a test is most evident within the crucible experience of Luis (Louie) Zamparini. While Louie experienced several different crucibles throughout the course of his life, for the purpose of this thesis his crucible was his experience while a prisoner of war during World War II. Specifically, this particular crucible offered an extreme physical test for Louie. Despite being an Olympic athlete and multiple record holder with world class ability to endure physical discomfort during mid-distance runs,

the impact of captivity pressed his physical body beyond any limit he was previously able to identify or endure for himself.[50]

The physical test was amplified across many physical domains and in turn significantly increased the intensity of the overall crucible experience. These physical tests came in the form of dehydration, starvation, over exertion, and physical abuse from his captors. To intensify matters, he was singled out as a valuable propaganda tool for the Japanese war effort and was personally targeted for amplified cruelty at the hands of his captures. As a pointed example, Louie was forced to race Japanese athletes, despite his condition, in order to prove the overall superiority of the Japanese ethnicity to the supportive Japanese population. These attempts by the Japanese backfired as he was unwavering in his commitment and dug deep within himself to find the strength required to outperform his competitors and succeed in any physical task they levied on him.

To summarize what was initially introduced in this chapter, analysis of the literature identified crucible truths as a vital part and the first of two commonalities of a crucible experience. The most predominant crucible truths are mental disposition, relevance to time and space, and the test.

<u>Crucible Leadership</u>

The next common theme found when applying the research methodology to the literature is what the researcher describes as crucible leadership. Crucible leadership is considered by the researcher to be a subset of the Army's existing "Leadership

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[50] Hillenbrand, 180.

Requirements Model."[51] Within this model, the leadership attributes of warrior ethos, confidence, sound judgment, and resilience are universal to crucible experiences. Through this consistent presence in the literature, the researcher developed the label crucible leadership as the whole of these attributes. Consequently, the researcher determined these attributes, and their interconnected relationship with crucible experiences, required additional analysis in order to form solid deductions and conclusions.

It is also important to note that the attributes of crucible leadership are relevant to a participant both surviving the crucible experience and developing further after the experience. For example, if a participant relied heavily on a specific attribute to meet the challenges of a crucible, the participant's internal connection to the attribute would be deepened and their future leadership style would be shaped towards that attribute.

The first and arguably most important attribute of crucible leadership is the warrior ethos. As defined in chapter 1, a leader renders warrior ethos by conveying traits of discipline, sacrifice, cohesion, strength, and authority at a higher degree than a common individual does. [52] The evaluation of literature across the three categories anecdotally contends that a participant's warrior ethos is critical to successful navigation of a crucible experience. Whereas the term warrior typically refers to "one engaged in combat," from the crucible experience point of view combat is synonymous to challenge, or crucible test, experienced by the participant of a crucible.[53]

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[51] Headquarters, Department of the Army, ADRP 6-22, 5.

[52] Mississippi College, "Introduction to Warrior Ethos."

[53] Ibid.

To further explore warrior ethos and its related traits as applied to a crucible experience, the warrior ethos emphasis of discipline relates to the participant's ability to control and filter their behavior and display a state of order despite the surrounding chaos associated with the moment. Discipline, and its importance to the military, can be summed up by General George Washington's quote, "Discipline is the soul of an Army."[54] The warrior ethos trait of cohesion represents the participant's trust in themselves and the other individuals involved in the experience. Sacrifice is often the most difficult trait to portray in the face of a crucible. Sacrifice represents the participant's willingness to forfeit something highly valued, such as life, limb, position, security, and so on, for the sake of something determined to have higher value, such as family, legacy, victory, and so on. Strength within warrior ethos represents the participant's ability to take positive action, either physical, mental, moral, or a combination thereof, under significant stress and often in the absence of a clear solution. Finally, authority in a crucible experience is the participant's right or opportunity to take action, while knowing their upper and lower limits to that authority.[55]

In the literature, *The Outlaw Platoon: Heroes, Renegades, Infidels, and the Brotherhood of War in Afghanistan*, the actions of the men of Third Platoon, Bravo Company, 2nd Battalion, 87th Infantry Regiment, while deployed to a Forward Operating Base in the Bermel Valley, exemplify individuals whose extraordinary courage in the

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[54] United States Army Center for Military History, "Washington Takes Command of Continental Army in 1775," accessed May 6, 2015, http://www.army.mil/article/40819.

[55] Mississippi College, "Introduction to Warrior Ethos."

face of adversity is based in the crucible leadership attribute of warrior ethos.[56] Specifically, Lieutenant Sean Parnell's leadership actions during what he described as the "Zombie Apocalypse."[57] In the midst of one of the most significant military actions in Afghanistan up to that point in the conflict, and in the midst of heavy casualties within his platoon, Lieutenant Parnell understood his authority and responsibility to both the mission and his personnel. His understanding was clarified by a mid-battle exclamation to his platoon: "So here's what we're going to do. We will always stay and finish the fight. Got it? We're never going to break contact. We will never leave the ground to the enemy, and we're never going to give them a moral victory."[58]

Understanding the importance of warrior ethos and the influence it plays in a crucible experience, the platoon determined that grit was the main asset they possessed in advantage to their enemy. Throughout the literature, the author used this commitment to grit as a synonym to warrior ethos. Ultimately, their grit prevailed in the face of extreme adversity. Furthermore, upon successful return from combat their grit led to the members of their platoon receiving nineteen military awards, to include seven bronze stars, as recognition of their valor in support of Operation Enduring Freedom.

Building upon the crucible leadership attribute of warrior ethos, confidence is the next major attribute required and impacted by crucible experiences. Successful participants demonstrate the confidence to embrace responsibilities, authorities, and decisions associated with the crucible, and in turn, future leadership situations. Because

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[56] Mississippi College, "Introduction to Warrior Ethos."

[57] Parnell and Bruning, 165, Kindle.

[58] Ibid., 171.

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of the experience, crucible success offers the participant expanded confidence to face

impending challenges, known or unknown, as they are encountered, even if the challenge

is fundamentally different from the crucible originally experienced. Furthermore, the

participant develops understanding that future crucibles are unpredictable and

unavoidable but has confidence in their ability to survive them.

With growing confidence because of their crucible, participants are more likely to

seek out opportunities to test themselves or find personal limits. A crucible leader's

confidence is not artificial; it is founded in victories from the past and tied to an increased

sense of preparation and self-reflection. Ultimately, a crucible leader is able to function

with a high level of confidence because the leader is comfortable with not being perfect,

is not crippled by fear of mistakes or failure, is committed to their actions and decisions,

and is able to show courage on the outside even when thoughts of doubt creep up in the

inside.[59]

The confidence displayed by Roy Vagelos and the pharmaceutical drug Mectizan

in the midst of his crucible demonstrates the value of this attribute of crucible leadership.

Roy Vagelos, Senior Vice-President at Merck Pharmaceutical, was faced with a crucible

that centered on whether or not to provide genuine aide to society at the risk of hundreds

of millions of dollars in research cost and lost sales to his for-profit employer. After

significant deliberation and soul searching, Vagelos displayed unprecedented confidence

in his company, its future, the quality of his intracompany team, and himself by

determining that Merck would pursue Mectizan despite knowing it would be a financial

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[59] Mark Goldsmith, "Build Your Confidence Like a Leader," *Harvard Business Review,* March 30, 2009, accessed April 15, 2015, https://hbr.org/2009/10/build-your-self-confidence-lik/.

disaster. The following extract explains Vagelos' confidence to break industry precedence, "perhaps only a few people will be touched by the decisions that we make at such a critical moment; perhaps many will. However, either way, we need to be prepared to seize the opportunity."[60] As a result, Merck produced the river-blindness curing drug and provided it free to countries and populations that could not afford it.

Vagelos' confidence in the moment of his crucible positively impacted over 140 million people in thirty-five countries across the globe.[61] What was once a goal of treating river blindness has now transitioned to eliminating it worldwide. Just as important, his confidence to choose humanity over profit on such a large scale rippled across the pharmaceutical industry. Twenty years after his groundbreaking effort, it is common practice for pharmaceutical companies to follow his lead, originated in his confidence, as an industry standard.

As briefly described, warrior ethos and confidence provides a leader the ability to maintain composure and work constructively under pressure in order to display sound judgment, the next attribute of crucible leadership. Throughout the literature, crucible participants displayed sound judgment in the face of their crucible test. Sound judgment can be better described as the ability to develop and apply broad knowledge and expertise in a disciplined manner when making decisions.[62] Sound judgment enables a participant to find and take the best available action during a challenging situation.

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[60] Useem, 12, Kindle.

[61] Mectizan Donation Program, "About," accessed April 1, 2015, http://www.mectizan.org/about.

[62] Headquarters, Department of the Army, ADRP 6-22, 4.

Army doctrine further expands on sound judgment through its focus on agile and adaptive leaders. Field Manual 6-22 implores this practice by exploring leaders to apply critical thinking and adaptive approaches to complex or chaotic experiences. Throughout the literature, the crucible leader identified the elements critical for performance in each situation. In conjunction, the crucible leader quickly adapted practices or approaches to problems to capitalize on strengths and minimize weaknesses.[63]

The sound judgment of Eugene Kranz, National Aeronautics and Space Administration Flight Direct during the Apollo 13 mishap, is often analyzed in leadership courses.[64] It also provides an accurate summary of the importance of sound judgment as a crucible leadership attribute. In the chaotic operating environment he was faced with, riddled with tension, turbulence, and indecision, Kranz filtered through the disruptive emotions of other and multitudes of relevant and irrelevant information to gain situational understanding and eventually accomplished the perceived impossible by saving the lives of the three-person crew. Understanding he had many decisions to make and not enough time to make them, Kranz epitomized sound judgement through establishing command and control of the situation and directing teams of experts to build various and unique course of action recommendations designed to regain survivability of the Apollo 13 spacecraft.

Kranz remained the calm in the center of the storm throughout the situation and did not waiver in his commitment to find the best available solution. Eventually his

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[63] David J. Snowden and Mary E. Boone, "A Leader's Framework for Decision Making," *Harvard Business Review*, November 2007, accessed April 15, 2015, https://hbr.org/2007/11/a-leaders-framework-for-decision-making/.

[64] Useem, 66, Kindle.

teams, inspired by his crucible leaders attribute of sound judgement, deciphered the

problem and took understanding of the environment from chaotic to complex. Kranz

ultimately weighed the information and recommendations provided by both the team and

the astronauts against the strict timeline and executed the best available course of action.

Kranz's sound judgment was built on his trust for the experts he had surrounded himself

with, as well as with the many years he had spent preparing himself for a moment of that

magnitude, even if he did not know exactly what form his ensuing crucible would take.[65]

The final and inherently most difficult attribute of crucible leadership is

resilience. Resilience, as described in military doctrine, is the ability to operate

constructively in the face of and at the conclusion of adversity, a scenario often presented

in the form of a crucible. Throughout the case studies reviewed, each participant

displayed uncommon resilience during and after the crucible test. Resilience is founded

in the Five Dimensions of Strength: physical, emotional, social, spiritual, and family.[66] A

crucible leader relies on one, some, or all of these dimensions. These dimensions offer

the participant a base to downgrade or divide a potentially overwhelming challenge, or

conflict, into manageable parts. Resilience also offers the participant the assurance to

approach the challenges with self-control, stamina, and good character in choices.[67]

Admiral James B. Stockdale, a prison of war during the Vietnam War, provides

the ultimate and unwavering illustration of resilience. Much like Louis Zamparini,

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[65] Useem, 93, Kindle.

[66] Headquarters, Department of the Army, Army Regulation (AR) 350-53, *Comprehensive Soldier and Family Fitness* (Washington, DC: Government Printing Office, 2009), 7.

[67] Ibid.

Admiral Stockdale was the center of focus for his prison captures at Hoa Lo Prison, better

known as the "Hanoi Hilton."[68] These captures, because of his noteworthy status in the

military and American society. In addition to injuries sustained while ejecting from his

A-4 Skyhawk, which included a broken bone in his back and dislocated knee, Admiral

Stockton was subjected to an unprecedented four years in solitary isolation, two years in

leg irons, and over fifteen physical tortures.[69] In many ways, the Hanoi guards saw

breaking Admiral Stockdale as a significant victory in the propaganda war against the

Americans.

Despite unimaginable physical and mental abuse, Admiral Stockdale drew upon

his philosophical principles, notably the concept focusing on a person's reaction to a

problem, not the problem itself, as a reference point for his extraordinary resilience.

Retaining the ability to operate while in the midst of adversity, or the military defined

significance of internal resiliency, Admiral Stockdale inspired hope, commitment, and

empowerment within his fellow prisoners by codifying an internal prisoner code centered

on "unity over self."[70] As a specific example of his resilience, Admiral Stockdale once

knifed his own face and bruised his body to avoid being paraded through the streets as a

North Vietnamese war trophy.[71] Ultimately, Admiral Stockdale's commitment to his

sailors and the American cause convinced his captors that he was willing to die before

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[68] Stockdale, 24, Kindle.

[69] Ibid., 25.

[70] Ibid., 118.

[71] Ibid., 137.

submitting, resulting in marked improvement in the living conditions and treatment for all associated prisoners.[72]

This section of chapter 4 provided an overview of crucible leadership, which is the researcher identified second common to a crucible experience. A closer examination of this common theme, crucible leadership, recognized the four attributes of leadership that are most relevant to successfully navigating a crucible experience. The researcher identified warrior ethos, confidence, sound judgment, and resilience as the attributes of crucible leadership.

<u>Research Questions</u>

The initial part of this chapter expanded upon the findings associated with applying the research methodology to the literature categories in order to identify the commonalities associated with crucibles. This process defined what a crucible experience is and expanded upon the two researcher-identified commonalities of crucible truths and crucible leadership. The final section of this chapter will use the previously identified research analysis and additional information retrieved from the literature to form advocated responses to the primary and secondary research questions.

Analysis of the primary research question, should the DOD institutionalize a crucible experience within ILE, provided the researcher with evidence that the DOD should embrace a crucible experience as part of the ILE process. This recommendation comes with several caveats, which will be presented in depth in a conclusion and recommendation in chapter 5. To support this recommendation and the associated

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[72] Stockdale, 346, Kindle.

parameters, the researcher sought to provide depth and breadth through forming analysis of the six secondary research questions.

<div align="center">Can Crucible Experiences Increase the Attributes
of Effective Leadership; if so, which Attributes?</div>

The first set of research questions were answered together through the researcher's identification of crucible leadership as a common theme within crucible experiences. The earlier described attributes of warrior ethos, confidence, sound judgment, and resilience are attributes at the epicenter of crucible experiences. In the event of a crucible experience, the participant will build upon their previously existing levels of these attributes and expand them both during and after the event. If a participant does not have a foundation in these attributes to rely on, regardless if it is limited or significant, it is unlikely the participant will retain the mental fortitude or mental disposition required to achieve success through the duration of the crucible.

In more succinct terms, a participant can improve aspects of leadership during a crucible experience if they are conscious of the leadership attributes and retain the realist's mental disposition.

<div align="center">What are the Potential Negative Impacts
Associated with Crucible Experiences?</div>

This question posed one of the most difficult challenges to the researcher based on the wide variety of ways in which a crucible experience can present itself. While there is no single answer, examination leads back to the military concept of resilience. Crucible experiences are closely tied to extreme levels of physical stress, mental stress, emotional stress, or often a combination of all three. These stressors can manifest into long-term

impairment to the participant creating a situation where the participant is a better leader but suffers consequences in other aspects of their life. While there are several over exaggerated examples available, such as unrecoverable physical damage suffered while surviving as a prisoner of war, most of enduring risk a crucible experience lies beneath the surface. The only people that are able to identify this type of damage are the participant and those closest to them.

The military concept for resilience and resiliency is targeted to prepare an individual for and counter the effects of physical stress, mental stress, and emotional stress. The military does not limit the causes of these stresses to crucible experiences, but the preparation and aftermath of the stressors are common. Application of deductive reasoning implies that there is no scenario, in both a real-world or training environment, where a crucible participant is not subject to increased levels of stress and the associated negative effects.

<div align="center">

Can Institutionalized Crucible Experiences be Effectively
Created in an Education and Training Environment?

</div>

The researched identified Navy SEALS/BUDs training as the most commonly recognized education and training environment that aligns with the definition of a crucible experience. By definition, one of the most difficult aspects of an institutionalized crucible experience is the importance of creating an "unplanned" situation for the participant.[73] In an environment such as SEALS/BUDs, attendees often spend months or years planning and preparing to attend. Despite the groundwork, attendees are faced with several "unplanned" crucible experiences during the training because the preparation was

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[73] Bennis and Thomas, 5, Kindle.

unable to match the intensity of the actual event or the reaction of their body or mind to the previously mentioned intensity.[74]

There are several other military education and training environments that successfully implement crucible experiences, as defined in this research. These opportunities vary in focus from special forces, survivability, and extreme weather such as artic or heat operations.

Can an Institutionalized Crucible Experience Provide Concrete Context and Increase the Effectiveness of In-class Adult Education?

The active experiment or concrete context of an institutionalized crucible experience provides the educator and students of ILE with shared understanding and an opportunity for meaning making from the experience. This is particularly important within an environment like ILE where the students have a wide variety of background and parent organizations.

The Army Command and General Staff College identifies meaning making as a vital step in developing leaders. The process of meaning making allows the student, or crucible participant, to interpret a situation or experience and develop a personal understanding and ultimately improve as a leader.[75] Digging further into meaning making, an institutional crucible experience provides a common context for the Meaning

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[74] Bennis and Thomas, 5, Kindle.

[75] Army Command and General Staff Officer College, "Leader Development: Enhancing the Lessons of Experience," Blackboard, accessed January 12, 2015, https://cgsc.blackboard.com/bbcswebdav/pid-241875-dt-content-rid-1321293_1/xid-1321293_1.

Making Cycle to build upon, therefore the concrete example would benefit in-class
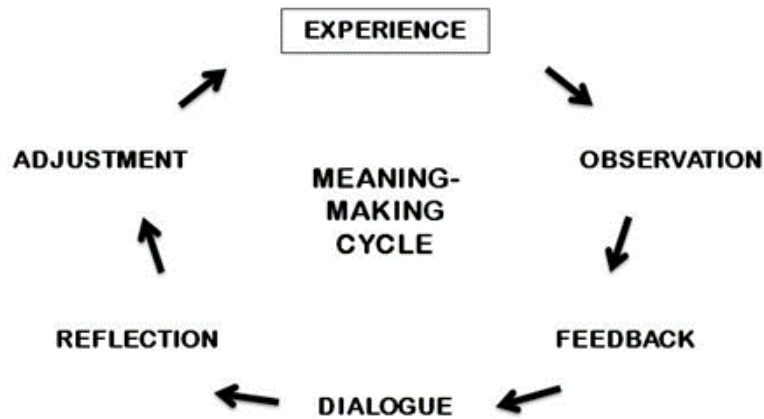
academic education.

Figure 7. Meaning-Making Cycle

Source: Army Command and General Staff Officer College, "Leader Development: Enhancing the Lessons of Experience," accessed January 12, 2015, https://cgsc.blackboard.com/bbcswebdav/pid-241875-dt-content-rid-1321293_1/xid-1321293_1.

Are there any Additional Positive Benefits of
Crucible Experiences to an Organization?

Through analysis of primary literature, literature that was specifically mentioned

in the literature review, and secondary literature, literature that was not specifically

mentioned in the literature review, the researcher recognized increased comradery as the

key additional benefit of a crucible experience for an organization. Inside this benefit, the

researcher linked comradery as a contributor to increased organizational effectiveness.

Organizational members that experience crucibles together often find increased levels of trust, communication, relationships, responsibility, and problem solving because of the comradery built through the crucible challenge. This benefit to organizations have been formalized with the creation of an entire corporate team building industry designed to offer executives and teams the opportunity to undertake crucible-like events. This private industry delivers crucible-like experiences ranging from mountain climbing, to sky diving, to military-style boot camps, or adventure courses to test participants' preconceived physical and mental boundaries.

Additionally, within the DOD, the U.S. Marine Corps is often recognized for their institutional embrace of crucible-like experiences at the service, unit, and individual level. These crucible experiences are often presented in the form of physical stress through extreme exercise and endurance challenges. Because of this constant exposure to crucibles and the increased comradery associated, the Marine Corps has highest amount of enlisted and officers retention over the past decade.[76] The desire, motivated by comradery built through crucibles, often results in many Marines being denied retention despite a desire to continue to serve since retention is higher than service need. While the Marine's sister services experience similar effects at times, the Marine Corps is the most consistent.

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[76] Congressional Budget Office, *Recruiting, Retention, and Future Levels of Military Personnel* (Washington, DC: Congressional Budget Office, October 2006), accessed April 5, 2015, http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/76xx/doc7626/10-05-recruiting.

Summary

This chapter sought to explore crucible experiences through the lens of leadership and leader development in order to answer the primary and secondary research questions. Ultimately, the research concluded that an institutionalized crucible experience would benefit both the individual and military services through inclusion at ILE for junior field grade officers. The following chapter will expand upon the researcher's conclusion.

CHAPTER 5

CONCLUSION

I'm firmly convinced that leaders are not born; they're educated, trained, and made, as in every other profession. To ensure a strong, ready Air Force, we must always remain dedicated to this process.
— General Curtis E. LeMay, USAF, Air Force Doctrine Document 1-1, *Leadership and Force Development*

Overview

As briefly introduced in the previous chapter, the researcher provides a positive recommendation for the DOD to institutionalize a crucible within ILE. The literature review and analysis provided in this thesis support this recommendation, but also identify several factors that must be associated and clarified within this endorsement. The remainder of this chapter will focus on illustrating the broad overall recommendation and establishing parameters that complement it.

Recommendation

This thesis establishes the recommendation the DOD should implement an institutionalized crucible experience within the ILE environment. In association with this recommendation, the researcher has made an initial endorsement that the institutionalized crucible experience should span two to four days and include pre-event indoctrination, event execution, and post-even reflection. The crucible event itself should seek to achieve the crucible truths previously identified in chapter 4 in order to benefit the attributes of crucible leadership within the students.

The positive leadership and organizational benefits associated with a successful crucible experience make up the basis for the recommendation. The primary benefit is the direct impact that crucible experiences have on individual leadership attributes and leader development. This benefit is rooted in the element that each of the various service ILE programs are purposefully designed to "educate, train and develop leaders" that upon graduation, are capable of successfully commanding, managing, and navigating within dynamic operational environments.[77]

Crucible experiences provide a unique opportunity to deepen an individual's leadership capacity in a short, intense setting. Specifically, the previously identified attributes of crucible leadership receive the most significant benefit with abbreviated resources. Crucible experiences may provide ILE institutions with the opportunity to target and benefit the leadership attributes of warrior ethos, confidence, sound judgment, and resilience without substantial contact time. Within the ILE education environment, the ratio between contact or student effort and learning value is critical towards meeting overall curriculum success. This is continuously reviewed by ILE leadership and staff to ensure maximum value. This thesis implies that a crucible experience captures the best of both requirements, time and effort, and offers a condensed impact.

Additionally, analysis of the literature determined that crucible experiences often influence a leader, or that leader's leadership attributes, more meaningfully than expansive exposure through traditional education. In other words, a crucible experience has the potential to develop a leader beyond traditional educational means. Consequently,

[77] United States Army Combined Arms Center, "Mission, Vision, Principles, and Philosophy, About the Command and General Staff College," accessed April 5, 2015, http://usacac.army.mil/organizations/cace/cgsc/mission.

the potential impact of an institutionalized crucible experience to the field grade officer core leadership, within the joint environment, is immeasurable.

The secondary benefit of a crucible experience is the impact it has on unit or field grade officer core comradery. Through surviving a crucible experience, evidence shows that officers will be bonded to a deeper level. This bond will assist in breaking down professional or organizational barriers that may continue to exist when ILE graduates interact through future operational assignments. As with many crucible experiences, the institutionalized crucible experience within ILE may provide an initial icebreaker, or commonality, during post-graduation interaction that enables individuals to develop trust more rapidly. This commonality could be considered a war story that provides commonality despite service background or ILE setting.

Parameters

The most critical aspects of the recommendation are tied to specific parameters that must be met in order to successfully offer an institutionalized crucible experience within ILE. The researcher is not sufficiently qualified in adult education processes to prescribe the exact details of how the crucible experience should be programed within the ILE curriculum, but the thesis provides the understanding essential to fix the right and left limits, or parameters, for the crucible.

The first parameter is that the crucible experience itself should not directly target leadership or leadership attributes. Conversely, the crucible experience should focus on achieving the crucible truths of mental disposition, the test, and relevance to time and space. By targeting, and preferably achieving the crucible truths, the attributes of crucible leadership will be inherently confronted and heightened through the experience. As the

literature in this thesis exposed, a crucible experience, regardless of its makeup or circumstances, quickly exposes leaders to situations that require leadership attributes, with specific emphasis on the attributes of crucible leadership as defined in chapter 4.

Understanding that leadership should not be targeted, rather ILE should focus on crucible truths, it is vital that an institutionalized crucible experience set the conditions for students, or participants, to institute the proper mental disposition prior to engaging in the experience. The Army Command and General Staff curriculum touches on this topic during its current crucible leadership lesson, but does not fully capture the concept of mental disposition. The current curriculum should be adapted to place increased focus on educating officers as to what a crucible experience is and how the various mental dispositions set the tone for a participant. It is also vital that the instruction and classroom discussion on mental disposition seek to transition students with optimistic or pessimistic mental dispositions to a realist disposition in regards to the upcoming crucible experience. This initial introduction to crucible experiences should occur approximately forty-eight hours prior to the kickoff of the actual crucible experience to allow students an opportunity to internalize the lesson and make the essential transition to a realist disposition, if necessary, prior to event onset.

Once the tone for the crucible experience has been set by the general education of what a crucible experience is and the importance of a realist mental disposition, the actual institutionalized crucible experience itself should concentrate on providing the field grade officers with a test. Referring back to the definition in chapter 4, the test should challenge the officer in a manner or degree that exceeds preconceived ideas of their personal limits.

Within the test, there is a natural tendency to focus on the physical domain with events such as a rucksack march or obstacle course. While testing this domain would meet the criteria of a crucible test, it is not directly relative to what field grade, post-ILE, officers will face upon graduation. For a large majority of the students, the future challenges of their leadership and career will be based in the mental and emotional domains of strength. Since these domains are more ambiguous and less metrically testable than the physical domain, developing a test of emotional and mental ability will be the most difficult obstacle in implementing an effective institutionalized crucible experience. To further this difficulty, the targeted emotional and mental domains are accompanied by a broad range of capabilities for each individual field grade officer. In conjunction with the varying range of abilities, the obstacle of testing the emotional and mental domains, to an extreme level that exceeds preconceived limits, without causing negative impact or risk to the individual or institution is critical.

Relevance to time and space is the final aspect of crucible truth that must be met in order to successfully offer a crucible experience within ILE. To meet this requirement, ILE should ensure the crucible experience lasts between thirty-six and seventy-two hours. Within the execution of the actual crucible event, officers should be required to reflect upon their experience. Preferably, officers should be requested to reflect on the experience when the perceived test has peaked and the student believes they have passed. After completing the mid-event reflection, the intensity and duration of the test should increase, unexpectedly to the studying, until culmination. Next, the students should conduct a second reflection approximately forty-eight hours after the conclusion of the crucible experience. During this reflection, they will use initial introduction to crucible

experiences and mental disposition, the mid-event reflection, and the event culmination to establish a firm understanding of the crucible experience through time and space. This final reflection should target the concept that a leader can successfully survive, and even excel, in challenges that far exceed their previously self-identified limits. In addition, by experiencing the crucible and the associated success, students had better understand their capacity to succeed in future crucible experiences or crucible-like events.

If establishing a test founded in the emotional and mental domains of strength is the most difficult, implementing an institutionalized crucible experience that has limited risk to the individuals or institution is the most important. With a military force that has been engaged in combat for over a decade, the DOD's field grade officers are under significant stress. The tax of this stress, and impact to the readiness of the force, is made evident by the increasing corporate-level efforts to reduce stress or provide stress management skills to members.

The researcher has significant concerns with adding stress, in particular stress that may damage a member, during an institutionalized crucible experience. Therefore, the researcher's recommendation is closely tied to establishing a crucible experience that actively shapes and limits the stress for participant. Going back to a previous example, the physical stress associated with a long rucksack march may cause medical damage, therefore impacting overall readiness as a result of the stress from the test. On the contrary, testing a member's ability to mentally perform while under sleep deprivation may offer the same level of test for the participant while mitigating some of the potential long-term risk of damage.

Summary

In closing, as the DoD continues to focus energy and effort on leader development, the resources allocated to this critical mission must be executed efficient and effectively. The need to deliver quality leader development is only amplified by the current fiscally constrained strategic environment and ambiguity of future operations. In order to provide a more effective leader development program for junior field grade officers, this thesis sought to determine the value of adding an institutionalized crucible experience to ILE.

The researcher's analysis supports a positive recommendation for implementing a crucible experience, but the recommendation is accompanied by several conditions. First, the crucible must clearly target the crucible truths of mental disposition, test, and time and space. This will result in the leadership attributes of warrior ethos, resilience, confidence, and sound judgment will be directly and positively impacted. Second, there must be specific focus within the curriculum or exercise development to ensure there is limited risk to the potential participants. If these conditions are met, the researcher's analysis supports crucible experiences as a vehicle to link classroom learning and practical experience to enhance leader development within ILE.

Finally, the researcher recommends additional research and analysis in order to fine-tune this recommendation and transition into specific curriculum development. The preponderance of additional research should target the two previously identified most difficult and most important parameters within this chapter. Substantial follow-on effort is essential to determining the method in which ILE can test emotional and mental ability to the level of a crucible experience, or the described most difficult parameter.

Consequently, testing those domains without significant risk to the individual or

institution will be the most important parameter. The solution to these obstacles can only

be determined by supplementary investigation and a refined recommendation. The

combined products, this thesis and additional research on how to overcome the obstacles,

will provide the support evidence needed to initiate an institutionalized crucible

experience discussion and recommendation with the various ILE stakeholders.

BIBLIOGRAPHY

Books

Bennis, Warren G., and Robert J. Thomas. *Crucibles of Leadership: How to Learn from Experience to Become a Great Leader.* Boston, MA: Harvard Business Press, 2008. Kindle.

Hillenbrand, Laura. *Unbroken: A World War II Story of Survival, Resilience, and Redemption.* New York: Random House, 2010.

Moye, Todd J. *Freedom Flyers: The Tuskegee Airmen of World War II.* New York: Oxford University Press, 2012. Kindle.

Parnell, Sean, and John R. Bruning. *Outlaw Platoon: Heroes, Renegades, Infidels, and the Brotherhood of War in Afghanistan.* New York: William Morrow, 2012. Kindle.

Stockdale, Jim. *Thoughts of a Philosophical Fighter Pilot.* Stanford, CA: Hoover Institution Press, 1995. Kindle.

United States Army Center of Military History. "Washington Takes Command of Continental Army in 1775." U.S. Army, June 5, 2014. Accessed May 6, 2015. http://www.army.mil/article/40819.

United States Army Combined Arms Center. "Mission, Vision, Principles, and Philosophy: About the Command and General Staff College." Accessed April 5, 2015. http://usacac.army.mil/organizations/cace/cgsc/mission.

Useem, Michael. *The Leadership Moment: Nine True Stories of Triumph and Disaster and Their Lessons for Us All.* New York: Crown Business, 1999. Kindle.

Xavier, D. H., and Mark Owens. *Breaking BUD/S: How Regular Guys Can Become Navy SEALs,* 2nd ed. CreateSpace Independent Publishing Platform, 2013. Kindle.

Government Documents

Congressional Budget Office. *Recruiting, Retention, and Future Levels of Military Personnel.* Washington, DC: Congressional Budget Office, October 2006. Accessed April 5, 2015. http://www.cbo.gov/sites/default/files/cbofiles/ ftpdocs/76xx/doc7626/10-05-recruiting.

Headquarters, Department of the Air Force. Air Force Doctrine Document 1-1, *Leadership and Force Development.* Washington, DC: Government Printing Office, 2004.

Headquarters, Department of the Army. Army Doctrine Publication 6-22, *Army Leadership.* Washington, DC: Government Printing Office, August 2012.

_____. Army Doctrine Reference Publication 6-22, *Army Leadership.* Washington, DC: Government Printing Office, 2012.

_____. Army Doctrine Reference Publication 7-0, *Training Units and Developing Leaders.* Washington, DC: Government Printing Office, 2012.

_____. *Army Leadership Development Strategy.* Washington, DC: Government Printing Office, 2013.

_____. Army Regulation 350-53, *Comprehensive Soldier and Family Fitness.* Washington, DC: Government Printing Office, 2009.

_____. Field Manual 6-22. 5, *Combat and Operational Stress Control Manual for Leaders and Soldiers.* Washington, DC: Government Printing Office, 2009.

Periodicals

Anderson, Amy Rees. "Good Leaders are Invaluable to Company, Bad Leaders Will Destroy It." *Forbes,* January 14, 2013. Accessed April 15, 2015. http://www.forbes.com/sites/amyanderson/2013/01/14/good-leaders-are-invaluable-to-a-company-bad-leaders-will-destroy-it/.

Bennis, Warren G., and Robert J. Thomas. "Crucibles of Leadership." *Harvard Business Review,* September 2002. Accessed May 8, 2015. https://hbr.org/2002/09/crucibles-of-leadership/ar/1.

Goldsmith, Marshall. "Build Your Confidence Like a Leader." *Harvard Business Review,* October 30, 2009. Accessed April 15, 2015. https://hbr.org/2009/10/build-your-self-confidence-lik/.

Kruse, Kevin. "Quotes on Leadership." *Forbes*, October 16, 2012. Accessed March, 15, 2015. http://www.forbes.com/sites/kevinkruse/2012/10/16/quotes-on-leadership/.

Snowden, David J., and Mary E. Boone. "A Leader's Framework for Decision Making." *Harvard Business Review,* November 2007. Accessed April 15, 2015. https://hbr.org/2007/11/a-leaders-framework-for-decision-making/.

Online Sources

Army Command and General Staff Officer College. "Leadership Applied: Crucible Essay." Accessed January 8 May, 2015. https://cgsc.blackboard.com/webapps/blackboard/content/listContent.jsp?course_id=_3801_1&content_id=_241846_1.

_____. "Leader Development: Enhancing the Lessons of Experience." Accessed January 12, 2015. https://cgsc.blackboard.com/bbcswebdav/pid-241875-dt-content-rid-1321293_1/xid-1321293_1.

Critical Thinking Community. "Critical Thinking: Where to Begin." Foundation for Critical Thinking. Accessed January 10, 2015. http://www.criticalthinking.org/pages/critical-thinking-where-to-begin/796.

Giles, LtCol John. "Leadership is Solving Problems." Schriver Air Force Base, February 14, 2011. Accessed April 10, 2015. http://www.schriever.af.mil/news/story.asp?id=123242518.

Marine Corps University. "Command and Staff College, Mission Statement." U.S. Marine Corps. Accessed April 23, 2015. https://www.mcu.usmc.mil/csc.

Mectizan Donation Program. "About." Accessed April 1, 2015. http://www.mectizan.org/about.

Mississippi College. "Introduction to Warrior Ethos." Accessed April 23, 2015. http://www. mc. edu/rotc/files/5813/1471/5888/MSL_101_Values__Ethics_Sect_01_Intro_to_the_Warrior_Ethos.pdf.

United States Army Combined Arms Center. "Mission, Vision, Principles, and Philosophy, About the Command and General Staff College." U.S. Army. Accessed April 5, 2015. http://usacac.army.mil/organizations/cace/cgsc/mission.

Wesley College. "Leadership Development Programs." Accessed April 1, 2015. http://www.wesley.edu/leadership.html.